Steps procedure for integrating RMX solution into Lync environment

Document prepared by Brahim AIT OUMERI - MS UC Solutions Architect - Polycom EMEA

E-mail: brahim.aitoumeri@polycom.com

Login on the RMX2000 :

RMX 172.21.17.30 Windows Internet Explor	rer				
- http://172.21.17.30/EMA.U.0/EMA.html				🖌 👍 🗙 Google	2
Ele Edit Yew Fgrontes Iools Help					
👷 🏟 👩 RMX 172.21.17.30				0 · 5	👼 • 🔂 Bage • 🕥 Tools •
			-		
POLYCOM RMX 2000	44 U 12	1	24/20 A		
View Administration Setup Help			RMX IP Address: 172.21.17.30	Signaling Host: 172.21.17.32	MEU Prefix in GK: 76 Logout
Conferences (0)	IP Network Services				Address Book (12) 📮
🖓 30 👾 (#) (#) Find:	1 / · · · · · · · · · · · · · · · · · ·				🔒 de 🖬 💷 📭
Q	Name IP Address Netw	work Type MCUPrefix in Gatekeeper			
Display Name Status ID Start Time End	Management Network 172.21.17.30				Finds
	IP Network Service 172.21.17.32 H.3	23 & SIP 76			0
					Type Name 🛛 🗸
					🛃 bill
					Brahim Ait Oumeri
					HDX 102
					HDX 103
					HDX Marc
¢ 3					E HOXADOO
RMX Management					
A					HDX3000
IVR Services					LAB MCER
P Network Services					Marc Cerli SIP
W Recording Links					SE HDX
ISDN/PSTN Network Services					to to
Conference Profiles					VSX VSX
Foto Climes					
Mi CD Exchains					
The Cohenny Deeflar					
E cod montan	4				I S I S
Active Alarms (2)	Concerning Locale	Description -			4
2	Category Level Code	Process Name Description			
a and at an 2011 14:06:55	Consert Malas Catalogge Soluce	Catalogue Ch Delated CBC Dece	· · · · · · · · · · · · · · · · · · ·		
2 merdi 24 mai 2011 14:01:24	General Major Gatekeeperfailure	Gatekeeper GK_Rejected_GRQ_Reaso	n_is_kesource_Unavailable, (cs ld 1)		
			Dest Hereney Harris	8 / 8 · .	
Participant Alerts			Port usage: voice	0/24 deo 0/4	is 💼 👝 mud State: MAJUI

nagement Network Pro	operties	
> IP > Routers > DNS	Network Service Name:	Management Network
> LAN Ports	MCU Host Name:	rmx2000s1
	DNS:	Specify
	🗖 Register Host Names Automat	ically to DNS Servers
	Local Domain Name:	polycomlive.com
	DNS Servers Addresses	
	Primary Server:	172.21.17.4
	Secondary Server:	0.0.0
	Tertiary Server:	0.0.0

Go in the Management Network Properties

Enter the following related information :

MCU Host Name : rmx2000s1 (enter here the hostname of the RMX)

DNS: Specify (enter here "Specify")

Local Domain Name: **polycomlive.com** (enter here the domain name where Lync is hosted; for example, if FQDN of Lync is lync01.domain.com, then enter "domain.com")

Primary Server: 172.21.17.4 (enter here the IP address of the DNS server RMX)

After this reboot the RMX server:

RMX 172 21.17.30 Windows Internet Explor	Af		- 8
C C + M http://172.21.17.30/EMA.UI/EMA.html		🖌 🦛 🗙 Goode	٩ (
File Edit. View Favorites Tools Help			
😭 🏟 🔊 RMX 172.21.17.30		🙆 • 🖾 ·	🖶 • 🔂 Page • 🕥 Tools •
nolycom RMX 2000	and the second sec		
View Administration Setup Help	RMX IP Address: 172.21.17.30	Signaling Host: 172.21.17.32	MCU Prefix in GK: 76 Logout
onferences (0)	1P Network Services		Address Book (12)
🚱 30 👷 (+) (+) Find:	迫迫意义		8 de 6 01 03
Q	Name IP Address Network Type MCUPrefix in Gatekeeper		
Display Name Status ID Start Time End	Management Network 172.21.17.30		Find:
	IP Network Service 172.21.17.32 H.323 & SIP 76		0
			Type Name 🛛 🏹
			bill
			🛃 🛛 Brahim Ait Oumeri
	RMX 2000		HDX 102
	(2)		HDX 103
	(Note: Reset may take several minutes.)		HDX Marc
¢ 3			HDX4000
RMX Management	Vet No.		НОХ9000
Δ			LAB MCER
IVR Services			Marc Carli SIR
IP Network Services			
Mr. Recording Links			SE HUN
ISDN/PSTN Network Services			193 00
Conference Profiles			W VSX
G Entry Queues			
di SIP Factories			
🖹 Gateway Profiles			
🖹 Log Analysis 😞			<
Active Alarms (3)			
ID V Time	Category Level Code Process Name Description		
4 🙆 lundi 30 mai 2011 12:37:05	General Major IP Network Service c McuMngr Management service was modified. Reset the MCU		
🖳 🕘 mardi 24 mai 2011 14:06:55	General Major Insufficient resources Resource Insufficient resources		
2 🙆 mardi 24 mai 2011 14:01:24	$\label{eq:General} General Major \\ Gatekeeper GK_Rejected_GRQ_Reason_Is_Resource_Unavailable, (cs Id 1) \\$		
System Alerts Participant Alerts	Port Usage: Voice	0/24 Wideo 0/4	13 📕 🗥 MCU State: MAJO
Histart 6 C 6 " Dis	A Loris ¹⁰ Spatch Desilop	Q E 2 100%	



Then, login on the DNS server and Add the RMX FQDN in DNS pointing to the Signalling IP address of the RMX.

In the example of the RMX shown previously, the Signalling IP address is: 172.21.17.32

😼 172.21.17.4 - Remote Desktop C	onnection				
L DNS Manager					_l#^
File Action Yiew Help					
🗢 🗣 🔼 🔟 🗶 🔛 🕒 🔛					
File Auton Verr Help The Auto	Vener - var var var var var var var var	Type Neve Hots. Name (uses parent domain (ms:2000s1 Fully qualified domain name (ms:2000s1, polycomive, c) T2.2.1.7.52 C_frame associated poin (ms:2000s1, polycomive, c) C_frame associated poin (ms:2000s1, polycomive, c) Mage are associated poin (ms:2000s1, polycomive, c) Host (A) (older) Host (A) Indee) Statt of Authority (Sc) (older) Name Server (Nc)	Data name # black): n (PQCA): om. a (PQCA): om. due (PTR) record duer to quidele CMS records with the Add tjost Cancel 172.21.17.5 172.21.17.4 Add Look Add Look Concel 172.21.17.4 Add Look Add Look Concel	Transitomp static static 120%2011200000 10%20111200000 static static	

DNS Manager
le Artists View Helts
Continued Looks Zones Jorden Looks Zones Jorden Looks Jor

Once the DNS RMX Signalling IP record entry is added, run the nslookup command on the Lync server to check that the RMX FQDN is resolved by the Lync server.

You can also check if you can ping the FQDN of the RMX from the DNS server and then from Lync server as shown below.

Ping from DNS server:



Ping from Lync:

172.2	21.17.5 - Remote Desktop Connection		
	The Information Services (ITS) Manager		
		ba = ∰ 10 •	
Info	The View Thep	1 Contraction of the local division of the l	
1110	Connections Generation Server Certificates	Actions	
	Contraction of the second seco	Import	
-	Summer (cettern) Hicknowic (Upprint) Goygeright (<>>2009 Constraint, All rights reserved. Appledon Pao Gylacetyadministratar, POLYCOME(UPprint rev280861, polycon)ive.con You Constraint, POLYCOME(UPprint rev280861, polycon)ive.con	Create Certificate Request Complete Certificate Request	
Certificati Root Con.	Pinging Fnx200051.polycomlive.com [172.21.17.32] with 32 hytes of data: AU2/16/7416041	Create Self-Streed Cettington	
	Reply from 172.21:17.32: bytes -32 time-tam TIL-64 Day(III)27007 Reply from 172.21:17.32: bytes -32 time(tam TIL-64 FFESTFADC0246 Reply from 172.21:17.32: bytes -32 time(tam TIL-64 COST64770CA6 Reply from 172.21:17.32: bytes -32 time(tam TIL-64 COST64770CA6	Help Online Help	
n Q	Ping statistis for 172,21.17.32: Ping statistis for 172,21.17.32: Ping statistics for 172,21.17.32:		
Lync Serve	Approximate round trip times in milli-seconds: Advant Approximate round trip times in milli-seconds: AfSECONDERSES		
Canada	C:\Users\administrator.POLVCOMLIUE>		
	567-19557243704 70/2019/94-195936		
Infoi .txt			
1.84	Print/cus Trinst. Print: Cancel		
	C Peakures View		
	Resdy.	9a.:	
C IStart	🛃 🖉 🧮 🐺 🥓 🥒 👪 💱 📟	EN * (P) 🔁 👍	14:30 30/05/2011 🗸
<			×

Then, login on the Lync server and run the following steps.

Set the Routing for the Polycom RMX System

1- Use Lync Topology Builder to define your trusted application pool





Enter for example the following trusted entry name: rmx2kvideo.polycomlive.com This entry will be used to call the RMX meeting rooms from Lync client. For example, to call meeting room 1001 from Lync client, you will need to call the following SIP URI from Lync client: 1001@rmx2kvideo.polycomlive.com

In your case, you can enter:

rmx2kvideo.domain.com (in case your domain name is "domain.com"). In this case, you will call 1001 meeting room from Lync client using the following SIP URI: 1001@rmx2kvideo.domain.com

	172.21.17.5 - Remote Desktop Connecti	01	
Atta: Very Help Convertered and provide advancements and the properties for this item are unavailable for adding. Purch Server 200 Purch Server 200 Purch Server 200 Purch advancements provide Purch Server 200 Purch Serve	ol ync Server 2010, Topology Builder		
The properties for this term are unavailable for editers. The properties for the term are unavailable for editers. The properties for this term are unavailable for editer	ile Action View Help		
Unr. Server 2010 Parts	• 🚸 🖄 🔟 🔟 🔟		
The Rev Contra	Survey 2010 Survey 20	The properties for this item are unavailable for editing. Define the Trusted Applications Pool Image: Comparison of the Trusted Applications pool, and indicate whether the pool will be serve or multiple-server, important: A single-server pool cannot be converted later to a multiple-server pool cannot be converted later to a multiple-servere	Actions Trolsted application servers Image: Server Trolsted Apple atom Prod Topology Verv Image: Trolsted Apple atom Prod Image: Topology Verv Image: Topology Image: Topology

Then enter the FQDN of the RMX that you had defined in the DNS previously. rmx2000s1.polycomlive.com (in this current example)

172.21.17.5 - Remote Desktop Connec	lon	
tync Server 2010, Topology Builder		
File Action View Help		
🗢 🌩 🖄 🔟 🔟 🔟		
Server 2010 Server 20	The properties for this item are unwalkable for editeg. Define the computers in this pool. Define the computers in this pool. Define the computers that make up the pool. At least one computer is required. Computer (QON:	Actions Trusted application servers Image: International Application Pool Topology View View Image: International Application Pool Image: International Application Pool View Image: International Application Pool Image:
new 👔 🔽 🖂 🖂		FB + D1 50 / 15:07
		J * 10 (0 30/05/2011)

Select the Lync pool as shown below:

172.21.17.5 - Remote Desktop Connect	fon	
Stync Server 2010, Topology Builder		
File Action View Help		
File Action Vew Hep Image: Server 2010 Image: Server 2010 Image: Server 2011 Image: Server 2010 Image: Server 2011 Image: Server 2010 Image: Server 2010 Image: Server 2010 Image: SE00-1, Delycardive.com Image: Server 2010 Image: SE00-1, Delycardive.com Image: SE00-1, Delycardive.com Image: SE00-1, Delycardive.com Image: Server 2010 Image: SE00-1, Delycardive.com <	The properties for this item are unavailable for editing.	Actions Trusted application servers Sew Trusted Application Prod Toucled Application Prod Very Very Help
2 arbahcaninerani	Help Back Einiah Cancel	
Arstant 🔥 🛛 🧮 🧠	23 🤝 I 🔀 🛐 🔤 逼	FR * P 2 (p 15:08

Do. Min	soft Lune Server 2010 Control Panel	
Lync Server 2010, Topology Builder		
e Action View Help		
🔹 🖄 🔟 🔟 🔟		
Sundard Editor Front End Servers Paris Standard Editor Front End Servers Paris Standard Editor Front End Servers Proto: pological p	General PQON: msc2levides.polycomike.com Exable replication of code problemition.com in trabled trabled poct. trabled Next hop selection trabled Next hop pool: tyrsc01.polycomitive.com (panis)	▲ Actions Metrices Metrices Betrices Betrices Edit Properties Edit Properties Werw > Codete 110b
		(mat)
cart 🔍 🔊 😂 🔙	ST 🕪 🔊 💹 😭 🚥 🛄	EN * C 90 (* 15:10

After this, you will see the new trusted entry as shown below:

Then, right click on the new trusted entry and select "Topology", then select "Publish" action, as shown below:



Select "Next"

172.21.17.5 - Remote Desktop Connection	Control Ranol			
Social research Server 2010, Topology Builder	CONCOMPACIENCE		- 101 H	
File Action View Help				
(* *) 2 m 🛛 m				
🛃 Lync Server 2010			Actions	
E fill paris		•	rms2kvideo.polycomlive.com	-
Standard Edition Front End Servers			Altern Service	
Figure Editor Front Ford rook	and Antidex and another and		statest per ver	
Director pools Enable replication of	Publish Topology		Edit Properties	
E A/V Conferencing pools configuration data to			Topology	
book.	Publish the topology		Manu	
🖂 🦲 SQL stores	6 83		New	
I lync01.polycomive.comiytc			× Delete	
Went to be solution of the selection	In order for Lync Server 2010 to correctly route messages in your deployment, you must publish your topology. Before you publish the topology and reaction that the following tasks have completed:		1 Help	
Mediation pools				
Dig PSTN gateways Next how work	 A validation check on the root node did not return any errors. 		1	
Monitoring Servers	 A file share has been created for all file stores that you have configured in this topology. All simple URLs have been defined. 		1	
Archiving Servers	 For Enterprise Edition Front End pools and for Monitoring Servers and Archiving Servers: All SQL stores are 		1	
Edge pools	installed and accessible remotely; firewall exceptions for remote access to SQL Server are configured.		1	
Indexed application servers	 For a single Standard Edition server: The task "Prepare first Standard Edition server" was run. 		1	
dros.polycomitye.com	 You are currently logged on as a SQL administrator, for example, as a member of the SQL sysadmin role. 		1	
mx1500s1.polycomive.com	objects, and conference directories have been removed from the pool.		1	
🚂 mx1500s2.polycomlive.com			1	
i mx1500s3.polycomive.com	When you are ready to proceed, click Next		1	
ug mx2kvideo.polycomitve.com	HIGH PARTIC COMPTO PROCESS CALCULATION		1	
mx2000s1.polycomive.com Pranch cher			1	
E A shanaris			1	
E Cal Survivable Branch Applances			1	
Bb sba.polycomive.com			1	
Mediation pools			1	
U _{K,} sba.polycomive.com			1	
E D PSTN gateways	Help Back Next Cancel		1	
To ux.polycomive.com			1	
			1	
			1	
			1	
			1	
			1	
			Gal	_
Afstart 📇 🗾 🧮 🏹 😹 🛹 🍠) 🔀 🧐 📟 🥁		FB 🗱 🔁 🔁 🕼	15:11 30/05/2011
			4	>

Select "Yes to All"

172.21.17.5 - Remote Desktop Connection	on	
ISSNICH Street Course 2010 Your Building	osoft Lync Server 2010 Control Ponel	
Styne server soro, repology conter-		
Pile Action View Help		
Pier Action Vew Feep Pierrer 2010 Image: Pierrer 2010 Image: Pierrer 20	Ceneral Protection of challes replication of control in the transformer of the	Actions New Server Edit Properties Topology Yew Yew Code 1 Hob
Astart 13, pg 100 100		
		30/05/2011

Select "Finish"

172.21.17.5 - Remote Desktop Connection	nitrol Ponel	
o Lync Server 2010, Topology Builder		
File Action View Help		
Constant Sundard Edition Front End Servers Sundard Edition Front End Servers Determine Edition S	Number of the series of	Actions The Server Edit Properties Topology Wew Celete Tel: 1969
🕼 🖾 🧱 🦝 🖉		FB * P 🔁 🕼 15:12 30/05/2011

Go in the "Lync Control Panel", in "Topology" menu, in the "Status" section and verify that the RMX FQDN entry "rmx2000s1.polycomlive.com" is there in the list, as shown below: In this current example, the RMX FQDN entry "rmx2000s1.polycomlive.com".



2- Use Lync Powershel to set the Polycom RMX system as a trusted host with a static route

PS C:\Users\administrator.POLYCOMLIVE>

\$route=New-CsStaticRoute -TLSRoute -Destination "rmx2000s1.polycomlive.com" -port 5061 -matchuri "rmx2kvideo.polycomlive.com" -UseDefaultCertificate \$true

In this example "rmx2000s1.polycomlive.com" is the RMX FQDN and "rmx2kvideo.polycomlive.com" is the trusted entry defined previously.



After that, run the following command also to set the new route

PS C:\Users\administrator.POLYCOMLIVE>

Set-CsStaticRoutingConfiguration -Identity global -Route @{Add=\$route}



3- Use Lync Powershell to create the trusted application

PS C:\Users\administrator.POLYCOMLIVE>

New-CsTrustedApplication -ApplicationId rmx2kvideoProxy -TrustedApplicationPoolFqdn rmx2kvideo.polycomlive.com -port 5061

In this current example, **ApplicationId** is "**rmx2kvideoProxy**". In your example, you can enter exactly the same name. That will not have any negative impact on your setup.

In this current example, **TrustedApplicationPoolFqdn** is "**rmx2kvideo.polycomlive.com**". In your example, you have to enter the trusted entry you had created previously. In fact, it could be "**rmx2kvideo.domain.com**" if your domain name is "**domain.com**".

🖉 Administrator: Lync Server Manage	ement Shell _ 🗌 🗶	I
PS C:\Users\administrator.F mx2kvideoProxy -TrustedApp]	OLYCOMLIVE> New-CsTrustedApplication -ApplicationId r icationPoolFqdn rmx2kvideo.polycomlive.com -port 5061]
WARNING: The following chan	ges must be made in order for the operation to be	J
complete. Enable-CsTopology must stil	l be run for all changes to take effect.	
Identity	<pre>: rmx2kvideo.polycomlive.com/urn:application:rmx2kvi deoproxy</pre>	
ComputerGruus	: <pre>(rmx2000s1.polycomlive.com sip:rmx2000s1.polycomli ve.com@polycomlive.com;gruu;opaque=srvr:rmx2kvideo proxy:_PumFsR0kUiNkJ_UTrifQAA></pre>	
ServiceGruu	<pre>sip:rmx2kvideo.polycomlive.com@polycomlive.com;gru u;opaque=srvr:rmx2kvideoproxy:0KHUDa9KU1e41KUZnKPw kQAA</pre>	
Protocol	: Mtls	
ApplicationId	: urn:application:rmx2kvideoproxy	
TrustedApplicationPoolFqdn	<pre>: rmx2kvideo.polycomlive.com</pre>	
Port	: 5061	
LegacyApplicationName	: rmx2kvideoproxy	

4- Use Lync Powershell to update the topology





Go in the "Lync Control Panel", in "Topology" menu, in the "Trusted Application" section and verify that the RMX Trusted entry "rmx2kvideo.polycomlive.com" is there in the list, as shown below:

In this current example, the RMX Trusted entry is "rmx2kvideo.polycomlive.com".



Login the Lync server and create a new certificate for RMX using the IIS Manager from the lync server, as shown below:



Double click on the "Server Certificate"

172.2	1.17.5 - Remote Desktop Connection						- 60	
	Manager Information Services (115) Manager							^
	() () () () () () () () () () () () () (± ≈ ∰ 10 •	
	File View Help							
Indo Cardinado Receitorio Receitorio Cardinado Indonesia Indonesia Indonesia	Connections 	Serv Use this footane hyperblocks motificets	er Certificates to request and morage criffica <u>bround of the second</u> mod ladge paytornike, com mod ladge paytornike, com data paytornike, com	tes that the Web server Issued By polyconike-COI-CA polyconike-COI-CA polyconike-COI-CA polyconike-COI-CA polyconike-COI-CA polyconike-COI-CA polyconike-COI-CA polyconike-COI-CA polyconike-COI-CA polyconike-COI-CA polyconike-COI-CA	can use with Web sites Explation Date = 22(11)/2012 19:17-64 22(11)/2012 19:17-64 20(01)/2013 01:14-05 20(01)/2013 01:14-05 20(01)/2013 10:05-05 20(01)/2013 10:05-05 20(05)/2013 10:05-05 10(05)/2013 10:05-05 10	Configured for 55 Certificate Heah I 2015/COLD Selex/And-HOCOH VICIL CL-00-M-CLODINA EARCOID 17-60 UN2799/COLD 27-648-01 2015/COLD 2014/2012/99/COLD 27-648-01 And CL-056957002699 EXCH-04-74-92079/ENERTADA EXCH2012 TO 1012/99/ENERCEACH-02017/881/2041 EXCH2012 TO 1012/99/ENERCEACH-02017/881/2041 EXCH2012 TO 1012/99/ENERCEACH-02017/881/2041 EXCH2012 TO 1012/99/ENERCEACH-02017/881/2041 EXCH2012 TO 1012/99/ENERCEACH-02017/881/2041 EXCH2012 TO 1012/99/ENERCEACH-02017/89/ENERCEACH-02 EXCH2012 TO 1012/99/ENERCEACH-02017/99/ENERCEACH-02 ENERCEACH-02017/99/ENERCEACH-02017/99/ENERCEACH-02 ENERCEACH-02017/99/ENERCEACH-02017/99/ENERCEACH-02 ENERCEACH-02017/99/ENERCEACH-02017/99/ENERCEACH-02 ENERCEACH-02017/99/ENERCEACH-02017/99/ENERCEACH-02 ENERCEACH-02017/99/ENERCEACH-02017/99/ENERCEACH-02 ENERCEACH-02017/99/ENERCEACH-02017/99/ENERCEACH-02 ENERCEACH-02017/99/ENERCEACH-02017/99/ENERCEACH-02 ENERCEACH-02017/99/ENERCEACH-02017/99/ENERCEACH-02 ENERCEACH-02017/99/ENERCEACH-02017/99/ENERCEACH-02 ENERCEACH-02017/99/ENERCEACH-02017/99/ENERCEACH-02 ENERCEACH-02017/99/ENERCEACH-02017/99/ENERCEACH-02 ENERCEACH-02017/99/ENERCEACH-02017/99/ENERCEACH-02017/99/ENERCEACH-02 ENERCEACH-02017/99/ENERCEACH-02017/9	Actions Import Complete Carificate Request Complete Carificate Request Create Daman Certificate Create Self-Syned Certificate P Help Culture Help	
		Features Vou	Content View				2	
	Party	Lin readines new	Contraction 1920				61.	
		1					A.C.	
Start	👌 🗷 🤮 🦉 🗶 -	🤊 🗳	8				EN 客 🖓 🕼	14:12
٢.				41				>
🎁 star	🚺 🐞 🌈 🐷 🐂 🐯 2 - 🖿 9 - 📆 P.	🗘 Links	Seatch Desktop				🔎 🛛 100% 🕊 🔇 🌒 🖂	9 💕 14:17

Internet Information Services (IIS) Manage	No. Contraction of the second s	- D X
🔾 🖓 • LYNCO1 •		😅 — 🕤 I 🛛 -
File View Help		
onnections	0	Actions
·⊟ \$ \$	Server Certificates	Import
- 🐏 Start Page	Lise this feature to you well and manage certificates that the Web server can use with Web sizes configured for 50.	Create Certificate Request
LYNCOI (POLYCOMLIVE)Administrator)	Name Issued To Issued By Expiration Date + Certificate Hash	Complete Certificate Request
i Sites	lync01cert1 lync01.polycomilve.com polycomilve.DC01-CA 22/11/2012 19:17:45 1209E0021956AA6464D004F02E1CE4DA4E00DBAA	Greate Domain Certificate
	lync01cert1 hync01.polycomive.com polycomive-DC01-CA 22/11/2012 19:40:29 FA660817F601A39F89503A7346A82F167F416841	Create Self-Stated Catflicate
	rmx01cert1 rmx01video.polycomive.com polycomive-DC01-CA 20/01/2013 01:44:05 237D60F2E040F2761200511664006FE11F2FF007 rmx01cert1 rmx01video.polycomive.com polycomive-DC01-CA 20/01/2013 02:01:04 04ACE685F0288224F74240E789EFBE87EADD02A6	P Hab
	mmtltoret3 remoli velas pelycentives con polycentive to COI - CA. 2001/COI 312/CIC-ID. 005/7688739500.0914/695644405124 mmtltoret3 remoli velas pelycentives con polycentive to COI - CA. 2001/COI 312/CIC-ID. 005/7688739500.0914/695644405124 remoli velas pelycentives con polycentive to COI - CA. 2001/COI 312/CIC-ID. 005/7688739500.0914/6956444051247888E0549624 mmtltoret3 remoli velas pelycentives con polycentive to COI - CA. 2001/COI 3110/CIC. BSERE TV-MIDIASBEDE PERSIDE ALAM STATEREDERDER J2 STATEREDERDERDERDERDERDERDERDERDERDERDERDERD	Online Help
	Import Croster Certificate Request Complete Certificate Request Croster Soll-Signed Certificate	
	P Heb Criline Help	
nady	Fedures Yiew	
🖏 🗷 🧮 🥦 👪	🤝 🥥 🐹 🔖	EN S Pr E Co

Right click in the blank area and select "Create Domain Certificates"

Create a Security Certificate for the Polycom RMX System

In common name, enter the FQDN of the RMX server that had been entered as a DNS recond in DNS server.

172.2	1.17.5 - Remote Desktop Connection			
	📲 Internet Information Services (115) Manager			^
			😐 – 💮 I 🛛 -	
	Ele yew Help			
Info	Connections		Actions	1
	Q. 品 (台) 8.	Server Certificates	Import	
-	Start Page	Use this feature to request and manage certificates that the Web server can use with Web sites configured for 55L	Create Certificate Request	
1	Application Pools	Name Issued To Issued By Expiration Date ~ Certificate Hash	Complete Certificate Request	
Certificat	😟 😧 Sites	lync01cert1 lync01.polycomive.com polycomive=0C01-CA 22/11/2012 19:17:45 1289E502E956AA6464D034F82E1CE4DA4E3EDBAA	Greate Domain Certificate	
Root Con.		inc01cert1 inc01.pot/comive.com pot/comive-OC01-CA 22/11/2012 19:40:29 FA660017/601A39/09503A7346A02/16/7416041 rmx01cert1 rmx01vdeo.pot/comive.com pot/comive-OC01-CA 20/01/2013 01:44:05 237060F26846F2761200511664080FE11F2FF007	Create Self-Signed Certificate	
		rmolicerti Create Certificate	😧 Help	
00		rmullert3 1607470CA6 rmullerta 776A512AA41	Online Help	
NIC?		rm:1500:30ert: BBD806612		
Lync Servi Control Par		mx150051cert 00760E9503		
		mo2000cert1 Specify the required information for the certificate. State/province and City/locality must be specified 25601D6A24		
		rmv2000cert2 as official names and they cannot contain abbreviations. BSF78A8704		
		Common name: mx2000s1.polycumive.com		
		Organization: Polycom		
		Organizational unit: Pre-Sales		
ALC: N		City/jocality Lo Defense		
1		grate/province:		
		countryliedou:		
Intol .txt				
-				
1.tat				
		Brevious Next Enich Cancel		
		Features View		
	Ready		Q3.	
			Bit I	14.31
Start	- 🖏 🜌 🥁 🥦 🌌 -	🖉 🚄) 🗱 🗣 🔛	FB * P 🗑 🕼	30/05/2011
<			A	2





FB * P 2 (0 14:36

Afstart 🛛 🛃 🜌 🥞 🐺 🌌 🖉 🏹 🔛

S 172.:	1.17.5 - Remote Desktop Connection	Server	Certificates		LIX D = 10 P	
Certificat Root Con Lync Serv Control Pa	Set 1 = 15. Set 1 = 10 = 10 = 10 = 10 = 10 = 10 = 10 =	Use this feature to Name Intel Conti motil Conti	request and manage certificates that the Web server can use with Web sites or certificates General Details Certification Path Certification path Certification path Were Certificate and View Certificate so CK. This certificate is OK.	Andrewed for 53 Excel Heah Excel Heah Excel Second Advector Processing Conference on the Conferen	Ligort Create Certificate Request Conside Certificate Arguest Create Demain Certificate Create Self-Signed Certificate Www Eurori Remmin Remmin Remmin Create Self-Signed Certificate Distribution Certificate	
1.tat	Ready	Features View	Content View		e <u>a</u> : m ★ p ⊕ o	14:36 30/05/2011

Then, do following action:

😼 172.21.17.5 - Remote Desktop Connection	
For Console I mot	•
Certifiate Root Con	
Line Server Control Panel	
befostat bifostat	
Run X Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.	
Open Initial Image: Second se	
OK Cancel growse Østant 3	EN * P & (b 30/05/2011 v

172.21.17.5 - Ramote Desktop Connection	
Start 2717 271 27 4 Human Description 100 </th <th></th>	
Asar 🕹 27 🤮 😹 🛩 🚽 👪 📬 📟 🔩	EN * P & (b 14:37 30/05/2011

172.21.17.5 - Remote Desktop Connection	lon	
Info Console I mer	n antes Window Help	
🙇 🔅 🔅 🖻 🖬		
Console Root	Add or Remove Snap-ins	
Certificate Root Con	You can select snap-ins for this consele from those available on your computer and configure the selected set of snap-ins. For extendble snap-ins, you can configure which extensions are enabled. More Actions	•
	Available snop-ins: Selected snop-ins: Singe-in Singe-in Edit Extensions Edit Extensions	
Line Cardinal Powel	Advance Service of Service and Services Advanced in the Conception of the Computer you want this snap in to manage. Advanced in Monager Conception of the Computer file comput	
() Start 🔥 🖉 🧾 🤫		EN * P & (b 30/05/2011 -

172.21	17.5	- Remote Desktop Connection									E	
		a										A
Info	Conse	ole1.msc										
		Console 1 - [Console Root\Certificate	s (Local Computer)\Personal	\Certificates]							- 🗆 🛛	
		Ele Action View Favorites Wind	ow <u>H</u> elp								_8×	
		(* *) 🖄 🖬 🔏 ち 🗙 🖸 🖻	2 🖬									
		Console Root	Issued To . +	Top and Ry	Expiratio	Intended Purposes	Friendly Name	Status	Certificat	Actions		
Certificate		🖃 🗔 Certificates (Local Computer)	Contraction	polycomive-DC01-CA	15/05/2013	Server Authentication	dmacert1	1 200000 1	Web Server	 Records		
		🗄 🔛 Personal	Unc01.polycomive.com	polycomive-DC01-CA	22/11/2012	Server Authentication	lync01cert1		Web Server	Certificates		
		Certificates	Winc01.polycomive.com	polycomive-DC01-CA	22/11/2012	Server Authentication	lync01cert1		Web Server	More Actions	· · · ·	
		Trusted Root Certification Autho	mo:01.polycomlive.com	polycomive-DC01-CA	21/01/2013	Server Authentication	rmx01lync1cert		Web Server	row2000s1 polycomline com		
		Enterprise Trust Totermediate Certification Author	Grmo.01.polycomlive.com	polycomive-DC01-CA	10/05/2013	Server Authentication	rmx2000cert2		Web Server	This court polyconnive.com		
		Trusted Publishers	rmx01video.polycomlive.com	polycomive-DC01-CA	20/01/2013	Server Authentication	rmx01cert1		Web Server	More Actions	· · ·	
Lync Server		Untrusted Certificates	Enirmo01video.polycomilve.com	polycomive-DC01-CA	20/01/2013	Server Authentication	rmx01cert3		Web Server			
Control Panel		Third-Party Root Certification AL	Termitul video.polycomive.com	polycomive-DC01-CA	20/01/2013	Server Authentication	rmculcert1		Web Server			
		Trusted People	mr:1500s2.polycomive.com	polycomive-DC01-CA	09/05/2013	Server Authentication	rmc1500s2cert		Web Server			
		Remote Desktop Gestificate Economic Descents	Cirmo1500s3.polycomive.com	polycomive-DC01-CA	26/04/2013	Server Authentication	rmx1500s3cert1		Web Server			
		Smart Card Trusted Roots	Grmc2000.polycomlive.com	polycomive-DC01-CA	09/05/2013	Server Authentication	rmx2000cert1		Web Server			
		E 📑 Trusted Devices	mo:2000s1.polycomilve.com	polycomive-DC01-CA	29/05/2013	Server Authentication	rmx2000s1cert1		Web Server			
Info1.txt	Infe											
		4 I										
	Ar											
		Personal store contains 13 certificates.										
Start	13	. 😰 😭 🐻 👧 -	🥖 🥥 🔀 💐	1 🔤 🗔	-					EN 🖈 🕞	e 🔥 🚽	4:38
										1 1 1	30%	New I
												/ A 15

Then export this new created certificate, as shown below:

172.21.1	17.5 - Remote Desktop Con	nection									
	-										
	Console1.msc	Root\Certificate	s (Local Computer)\Personal	Certificates]							
	Ele Action View	Favorites Wind	low Help								- IFLXI
	🗢 🔿 📶 🎸	45 🗙 🖬 🖻									
	Console Root		Issued To ~	Issued By	Expiratio	Intended Purposes	Friendly Name	Status Certificat.		Actions	
Certificate Post Con	Certificates (Loca	Computer)	adma.polycomilve.com	polycomive-DC01-CA	15/05/2013	Server Authentication	dmacert1	Web Serve	r	Certificates	
	Certificati		Sallync01.polycomive.com	polycomive-DC01-CA	22/11/2012	Server Authentication	lync01cert1	Web Serve	r .	More Actions	,
	F Trusted Root	Certification Autho	Enllync01.polycomive.com	polycomive-DC01-CA	22/11/2012	Server Authentication	NTICO1Cert1	Web Serve	r	1.000	
	🗉 🧮 Enterprise Tru	JST.	Carmon polycomive.com	polycomive-DC01-CA	10/05/2013	Server Authentication	rtts/2000ced22	web Serve	a de la companya de la company	rmx2000s1.polycomlive.co	m 🔺
a 🔿	🕀 🧰 Intermediate	Certification Autho	Immolivideo.polycomive.com	polycomive-DC01-CA	20/01/2013	Server Authentication	rmx01cert1	Web Serve		More Actions	•
Lune Carver	Trusted Publis	hers	Trm:01 video.polycom/we.com	polycomilve-DC01-CA	20/01/2013	Server Authentication	rmx01cert3	Web Serve	r i		
Control Panel	Untrusted Cer	tricates	rm:01video.polycomive.com	polycomive-DC01-CA	20/01/2013	Server Authentication	rmx01cert1	Web Serve	r		
	E C Trusted Peopl	e cercification Ac	Trmx1500s1.polycomilve.com	polycomilve-DC01-CA	09/05/2013	Server Authentication	rmx1500s1cert	Web Serve	r		
	Remote Deskt	00	Grmx1500s2.polycomilve.com	polycomive-DC01-CA	09/05/2013	Server Authentication	rmc1500s2cert	Web Serve	r		
	🗉 🧮 Certificate En	rolment Requests	Grmc1500s3.polycomlive.com	polycomilve-DC01-CA	26/04/2013	Server Authentication	rmc1500s3cert1	Web Serve	r		
	🗷 🧰 Smart Card Tr	usted Roots	rms:2000.polycomlive.com	polycomilve-DC01-CA	09/05/2013	Server Authentication	rmx2000cert1	Web Serve	r		
	🕀 🧮 Trusted Devic	es	rms2000s1.polycomiive.com	polycomive-DC01-CA	29/05/2013	Server Authentication	rmx2000s1cert1	Web Serve	0040		
									open		
									Al Tasks 🔸	Open	
									Cut	Request Certificate with New Key	
									Copy	Renew Certificate with New Key	
									Delete	Managa Dekasha Kasar	
Info1.txt	Tests								Properties	Advanced Operations	
										narance spectre o	
									Help	Export	
·····											
1.84											
	Dev										
	pexport a certificate				_					J	
Start	🕹 🛛 🚞	8 🙇	🤊 🔊 🔀 🍕	🔤 😽					(iqi w wreles	ireless Network Connection is not o	onnected × 5/2011
🎒 start	📕 6 🖉 😔 👋 🖫 2 -	• 🖿 • 🔁 P	Unis ¹⁰ Search	Desktop						🔎 🛛 100% 🛛 🕮 🔇	🗢 🕞 🔹 🐙 🖇 14:44



Info Canso	6).ms Consule1 [Consule Root) Certificater File Action View Favorites Wind	s (Lacal Computer)(Personal (Certificates) on Hop		-CX -dx
2	Console Root	Issued To A	Expiratio Intended Purposes Friendly Name Status Certificat	Actions
rtilicate	🖃 🎑 Certificates (Local Computer)	Gldma.polycomilve.com polycomilve.DCD1-CA	15/05/2013 Server Authentication divacent I Web Server	Cordificators .
* Con	E Personal	Wync01.polycomive.com polycomive-DC01-CA	22/11/2012 Server Authentication lync01cert1 Web Server	Marco Antines
	Certricates	Gilync01.polycomive.com polycomive-DC01-CA	22/11/2012 Server Authentication lync01cert1 Web Server	More Actions
	🗄 🧮 Enterprise Trust	Sarmou polycomive.com polycomive-DC01-CA	Certificate Esport Wizard	rmx2000s1.polycomlive.com
For the provided of the provid	Envermediet confliction Autho Torbert Publishers Envermed conflictions Units and conflictions Torbert Read Centration Torbert Read Centration Confliction Benafics Confliction Benafics Confliction Benafics Confliction Benafics Torbert Design Torbert Design Torbert Design Torbert Design Torbert Design	amout percentine.com porcentine.com po	Expert Tile Femal Certificates can be exported in a watery of file formats. Select the format you want to use: © get encoded theory X.607 (.CET) Übse 0.6 encoded (X.007 (.CET) Encot ig encoded properties	More Actions
	<u>x</u> x		< Book Byort > Cancel	ļ

Enter the password for the pfx certificate, as shown below:



172.21.1	7.5 - Remote Desktop Connection									
Jofo .	Consule 1 = (Consule Boot) (Certificat Goode 1 = (Consule Boot) (Certificat Goode Action View Favories View Goode Action View Favories View Consule 1 = (Consule Boot) (Certificat	s (Lacal Computer)\(Personal) iow Holp	Certificates]:							- T X - E X
	Console Root	Issued To +	Issued By	Expiratio	Intended Purposes	Friendly Name 5	Status Certificat		Actions	
Certificate Root Cop	Certificates (Local Computer)	Gildma.polycomilve.com	polycomive-DC01-CA	15/05/2013	Server Authentication	dmacert I	Web Server		Certificates	-
	Certificates	Enllyncül.polycomkve.com	polycomive-DC01-CA	22/11/2012	Server Authentication	hync01cert1	Web Server		More Actions	•
	🗉 🧮 Trusted Root Certification Autho	Cmm.01.polycomive.com	polycomive-DC01-CA	21/01/2013	Server Authentication	rmx01hmc1cert	Web Server		and the second second second second	-
	Enterprise Trust	Girmo01.polycomlive.com	polycomive-DC01-CA	Certificate	Export Wizard			×	rmx2000s1.polycomirve.ci	- m
Mich	🗉 🧮 Trusted Publishers	Girm:01video.polycomlive.com	polycomive-DC01-CA	File to E	sport			1	More Actions	,
Lync Server Control Panel	E Untrusted Certificates	Carmiolivideo.polycomive.com	polycomive-DC01-CA	Spei	illy the name of the file y	ou want to export			1	
	Third-Party Root Certification Au Trusted People	Carma1500s1.polycomilye.com	polycomilve-DC01-CA						1	
	🖃 🧮 Remote Desktop	Timo:1500s2.polycomilve.com	polycomive-DC01-CA	T.I.S.	nama:				1	
	Certificate Errolment Requests	Salimo(1500s3.polycomive.com	polycomive-DC01-CA	00	rentificate/rmx2000s1ce	tLofx	6.0	Browse	1	
	Smart Card Trusted Roots Trusted Devices	Firmo:2000s1.polycomlive.com	polycomilve-DC01-CA	1.00				allower:	1	
	a second second second second								1	
									1	
-	-								1	
									1	
Infect but									1	
									1	
									1	
	-								1	
									1	
1111									1	
	Dev								1	
									1	
						<	Back Next >	Cancel	1	
	<u> </u>			_			e e la Marcella de la			
	2									
				-						
Start	1. 🙀 🚞 🔜 👧	🥪 🐊 💹 💱							FB * D	14:41
									1	30/05/2011
8										2



9 172.21.17.5	- Ramote Desktop Connection	s (tacol Computer) (Personal Certificates) Mol Tolo					
Continue Root Con. Dec Server Control Fanol	Concide Root Centricates (Local Computer) Centricates (Local Computer) Centricates Control food Centrication Autho Control food Centrication Autho Charpinse Fruit Fruitsde Ordelites Fr	Issued To - Issued Ty - Discontine DOI: CA - Discon	Expansion. Intended Purposes. 15(65(2013) Server Authentication 22(11)(2012) Server Authentication 22(11)(2012) Server Authentication 22(11)(2012) Server Authentication Certificate Esport Wisand The export was successful. Certificate Support Wisand The export was successful.	Irrendy Yame Status divected hynoticent hynoticent motification interview distribution have successfully comple and have successfully comple have successfull have successfully comple have successfull have successfull have successfull have successfull have successfull have succe	Certificat Web Server Web Server Web Server Web Server Web Server Ket Tificate Export ted the Certificate Export ted the Certificate Export ted the Certification path Yes Person * * * * * * * * * * * * * * * * * *	Actions Certificates More Actions rmsc20091_polycomlive.com More Actions	•
Af Start				<u> </u>	Phish Cancel	B R	E (b 30/05/2011

Set the SIP server settings in the RMX and import the certificate to RMX

First copy the new created PFX certificate from Lync server to a PC where you will connect to RMX and also create an empty **text file** called **certPassword.txt** in same folder where you had put the RMX certificate and then put the password you had entered for the certificate during its creation in the **certPassword.txt** file.

Then proceed with the following actions.

IP Nework Type: H323 & SIP

SIP Server: Microsoft

In SIP Servers put the information as mentioned below:

Server FQDN: lync01.polycomlive.com (you will need to put the FQDN of your lync server)

Server Domain Name: **polycomlive.com** (you will need to put the domain name of the where your lync server is located)

Port: 5061

Same for Outbound proxy server

etwork Service Propert	ies
. Material da a	
Networking	
> IP Dautana	Network Service Name: JIP Network Service
	IP Network Type: H.323 & SIP
S Conterencing	
- Dorte	SIP Server:
005	SIP Server Type:
SIP Servers	
Security	
SIP Advanced	
50 1	
	Refresh Registration every: 3600 seconds
	Transport Type: TLS 💽 Create Certificate
	Certificate Method:
	SIP Servers:
	Parameter Primary Server Alte
	Server IP Address or Name Tync01.polycomlive.com
	Server Domain Name polycomlive.com
	Outbound Proxy Servers:
	Parameter Primary Server
	Server IP Address or Name lync01.polycomlive.com
	Port 5061
	OK Cancel

Then upload the new created certificate as shown below by selecting the certificate Method as **PEM/PFX**:

 Networking IP Routers Conferencing Gatekeeper Ports QoS SIP Servers Security SIP Advanced 	Network Service Name: IP Network Type: SIP Server: SIP Server Type: Refresh Registration every:	IP Network Service H.323 & SIP Specify Microsoft Seconds		
	Transport Type: Certificate Method: SIP Servers: Parameter Primary S Server IP Address or Name lync01.pd Server Domain Name polycoml	3600 seconds TLS ▼ PEM/PFX ▼ Send Certificate arver Alte lycomlive.com ve.com		
	Outbound Proxy Servers: Parameter Primary S Server IP Address or Name lync01.pd Port 5061	erver olycomlive.com		

Then select both files the **certificate file** and the **certPassword text file** in same time by using the CTRL key and the mouse by clicking each time in the first and then on the second file.

Open		? 🔀
Look jn:	🔁 temp 💽 🗢 🖆 🖽 -	
📁 Recent	C HDX SIP traces HDX-Wireshark	Srmx15 Srmx15 Srmx15
Desktop	mogus - First vvx Disconnection issue after Second vvx MP HDx call - US March Nabil mrx1500 RMX Logs	Sarmx2C Srmx2C Srmx2C Srmx2C
My Documents	C rmxslough test Visio 2007 Professional ADMINPAK-README.TXT	
My Computer	certPassword.txt certRMX.pfx dmacert1.pfx polycom.pfx	
(>
My Network Places	File name: "rmx2000s1cert1.pfx" "certPassword.txt"	<u>O</u> pen
1 10003	Files of type: Certificate files: (*.pfx,*.pem,*.txt)	Cancel

Ins	stall File		×
	Install File:	rmx2000s1cert1.pfx,certPassword.txt Proceed?	Browse
		Yes	No

Then click on "Yes".

Network Service Propertie	
 >> Networking > IP > Routers >> Conferencing > Gatekeeper 	Network Service Name: IP Network Service IP Network Type: H.323 & SIP SIP Server: Specify
 > Ports > QoS > SIP Servers > Security > SIP Advanced 	SIP Server Type: Microsoft
	Refresh Registration every: 3600 seconds Transport Type: TLS Certificate Method: PEM/PFX Send Certificate SIP Servers:
	Parameter Primary Server Alte Server IP Address or Name lync01.polycomlive.com Server Domain Name polycomlive.com
	Parameter Primary Server Server IP Address or Name lync01.polycomlive.com Port 5061
	OK Cancel

Then RMX will ask you that it will reboot. Select "Yes".

RMX 2000		×
2	You must reset the MCU. Do you want to reset now? (Note: Reset may take several minutes.)	
	Yes No	



After the RMX reboot, you should not have any TLS error in the alarm monitor, as shown below:



Then, check in the Signaling Monitor, in SIP Server and you should see the IP address of Lync server with status as "OK".



Then go on a PC client and open Lync and enter for example the following SIP URI to call Meeting Room 1002 in RMX from Lync client:

1002@rmx2kvideo.polycomlive.com

RMX will answer and you will see the video out from RMX to Lync client as shown below.

